RAW SEQUENCE LISTING

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Application Serial Number: 10 617,034 A

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RAW SEQUENCE LISTING   DATE: 08/22/2005
PATENT APPLICATION: US/10/617,034A   TIME: 11:28:33

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Output Set: **N:\CRF4\08222005\J617034A.raw**

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 3 <110> APPLICANT: ITOH, NOBUYA
 4        WAKITA, RYUHEI
 6 <120> TITLE OF INVENTION: PROCESS FOR PRODUCING 3-HYDROXYCYCLOHEXANONE
 8 <130> FILE REFERENCE: Q76481
10 <140> CURRENT APPLICATION NUMBER: 10/617,034A
11 <141> CURRENT FILING DATE: 2003-07-11
13 <150> PRIOR APPLICATION NUMBER: JP 2002-205207
14 <151> PRIOR FILING DATE: 2002-07-15
16 <160> NUMBER OF SEQ ID NOS: 15
18 <170> SOFTWARE: PatentIn Ver. 3.2
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21 <211> LENGTH: 348
22 <212> TYPE: PRT
23 <213> ORGANISM: Corynebacterium pseudodiphtheriticum
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30              20                  25                  30
32 Thr Ala Ala Gly Val Cys His Ser Asp Asp Phe Ile Met Ser Leu Pro
33          35                  40                  45
35 Glu Glu Gln Tyr Thr Tyr Gly Leu Pro Leu Thr Leu Gly His Glu Gly
36      50                  55                  60
38 Ala Gly Lys Val Ala Ala Val Gly Glu Gly Val Glu Gly Leu Asp Ile
39  65                  70                  75                  80
41 Gly Thr Asn Val Val Val Tyr Gly Pro Trp Gly Cys Gly Asn Cys Trp
42              85                  90                  95
44 His Cys Ser Gln Gly Leu Glu Asn Tyr Cys Ser Arg Ala Gln Glu Leu
45              100                 105                 110
47 Gly Ile Asn Pro Pro Gly Leu Gly Ala Pro Gly Ala Leu Ala Glu Phe
48              115                 120                 125
50 Met Ile Val Asp Ser Pro Arg His Leu Val Pro Ile Gly Asp Leu Asp
51          130                 135                 140
53 Pro Val Lys Thr Val Pro Leu Thr Asp Ala Gly Leu Thr Pro Tyr His
54 145                 150                 155                 160
56 Ala Ile Lys Arg Ser Leu Pro Lys Leu Arg Gly Gly Ser Tyr Ala Val
57              165                 170                 175
59 Val Ile Gly Thr Gly Gly Leu Gly His Val Ala Ile Gln Leu Leu Arg
60              180                 185                 190
62 His Leu Ser Ala Ala Thr Val Ile Ala Leu Asp Val Ser Ala Asp Lys
63          195                 200                 205
65 Leu Glu Leu Ala Thr Lys Val Gly Ala His Glu Val Val Leu Ser Asp
66      210                 215                 220
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 69 225           .               230               235               240
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 74 Met Ala Val Ala Gly Val Gly Ser Asp Val Thr Ile Val Gly Ile Gly
 75                     260               265               270
 77 Asp Gly Gln Ala His Ala Lys Val Gly Phe Phe Gln Ser Pro Tyr Glu
 78             275               280               285
 80 Ala Ser Val Thr Val Pro Tyr Trp Gly Ala Arg Asn Glu Leu Ile Glu
 81         290               295               300
 83 Leu Ile Asp Leu Ala His Ala Gly Ile Phe Asp Ile Ser Val Glu Thr
 84 305               310               315               320
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108 Glu Ile Pro Lys Pro Glu Pro Gly Pro Gly Glu Val Leu Leu Glu Val
109                 20                  25                  30
111 acc gct gct ggc gtc tgc cac tcg gac gac ttc atc atg agc ctg ccc    144
112 Thr Ala Ala Gly Val Cys His Ser Asp Asp Phe Ile Met Ser Leu Pro
113         35                  40                  45
117 gaa gag cag tac acc tac ggc ctt ccg ctc acg ctc ggc cac gaa ggc    192
118 Glu Glu Gln Tyr Thr Tyr Gly Leu Pro Leu Thr Leu Gly His Glu Gly
119     50                  55                  60
121 gca ggc aag gtc gcc gcc gtc ggc gag ggt gtc gaa ggt ctc gac atc    240
122 Ala Gly Lys Val Ala Ala Val Gly Glu Gly Val Glu Gly Leu Asp Ile
123 65                  70                  75                  80
125 gga acc aat gtc gtc gtc tac ggg cct tgg ggt tgc ggc aac tgt tgg    288
126 Gly Thr Asn Val Val Val Tyr Gly Pro Trp Gly Cys Gly Asn Cys Trp
127                 85                  90                  95
129 cac tgc tca caa gga ctc gag aac tat tgc tct cgc gcc caa gaa ctc    336
130 His Cys Ser Gln Gly Leu Glu Asn Tyr Cys Ser Arg Ala Gln Glu Leu
131             100                 105                 110
133 gga atc aat cct ccc ggt ctc ggt gca ccc ggc gcg ttg gcc gag ttc    384
134 Gly Ile Asn Pro Pro Gly Leu Gly Ala Pro Gly Ala Leu Ala Glu Phe
135         115                 120                 125
137 atg atc gtc gat tct cct cgc cac ctt gtc ccg atc ggt gac ctc gac    432
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142 Pro Val Lys Thr Val Pro Leu Thr Asp Ala Gly Leu Thr Pro Tyr His
143 145             150             155             160
145 gcg atc aag cgt tct ctg ccg aaa ctt cgc gga ggc tcg tac gcg gtt      528
146 Ala Ile Lys Arg Ser Leu Pro Lys Leu Arg Gly Gly Ser Tyr Ala Val
147             165             170             175
149 gtc att ggt acc ggc ggt ctc ggc cac gtc gct att cag ctc ctc cgc      576
150 Val Ile Gly Thr Gly Gly Leu Gly His Val Ala Ile Gln Leu Leu Arg
151             180             185             190
153 cac ctc tcg gcg gca acg gtc atc gct ttg gac gtg agc gcg gac aag      624
154 His Leu Ser Ala Ala Thr Val Ile Ala Leu Asp Val Ser Ala Asp Lys
155         195             200             205
157 ctc gaa ctg gca acc aag gta ggc gct cac gaa gtg gtt ctg tcc gac      672
158 Leu Glu Leu Ala Thr Lys Val Gly Ala His Glu Val Val Leu Ser Asp
159     210             215             220
161 aag gac gcg gcc gag aac gtc cgc aag atc act gga agt caa ggc gcc      720
162 Lys Asp Ala Ala Glu Asn Val Arg Lys Ile Thr Gly Ser Gln Gly Ala
163 225             230             235             240
165 gca ttg gtt ctc gac ttc gtc ggc tac cag ccc acc atc gac acc gcg      768
166 Ala Leu Val Leu Asp Phe Val Gly Tyr Gln Pro Thr Ile Asp Thr Ala
167             245             250             255
169 atg gct gtc gcc ggc gtc gga tca gac gtc acg atc gtc ggg atc ggg      816
170 Met Ala Val Ala Gly Val Gly Ser Asp Val Thr Ile Val Gly Ile Gly
171             260             265             270
175 gac ggc cag gcc cac gcc aaa gtc ggg ttc ttc caa agt cct tac gag      864
176 Asp Gly Gln Ala His Ala Lys Val Gly Phe Phe Gln Ser Pro Tyr Glu
177         275             280             285
179 gct tcg gtg aca gtc ccg tat tgg ggt gcc cgc aac gag ttg atc gaa      912
180 Ala Ser Val Thr Val Pro Tyr Trp Gly Ala Arg Asn Glu Leu Ile Glu
181     290             295             300
183 ttg atc gac ctc gcc cac gcc ggc atc ttc gac atc tcg gtg gag acc      960
184 Leu Ile Asp Leu Ala His Ala Gly Ile Phe Asp Ile Ser Val Glu Thr
185 305             310             315             320
187 ttc agt ctc gac aac ggt gcc gaa gcg tat cga cga ctg gct gcc gga     1008
188 Phe Ser Leu Asp Asn Gly Ala Glu Ala Tyr Arg Arg Leu Ala Ala Gly
189             325             330             335
191 acg ctc agc ggc cgt gcg gtt gtg gtc cct ggt ctg tag               1047
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193         340             345
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197 <211> LENGTH: 325
198 <212> TYPE: PRT
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205 Gly Val Gly Phe Gly Thr Phe Ala Ser Glu Gly Ser Lys Gly Glu Thr
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206              20                   25                   30
208 Tyr Thr Ala Val Thr Thr Ala Leu Lys Thr Gly Tyr Arg His Leu Asp
209          35              40                   45
211 Cys Ala Trp Tyr Tyr Leu Asn Glu Gly Glu Val Gly Glu Gly Ile Arg
212      50                   55                   60
214 Asp Phe Leu Lys Glu Asn Pro Ser Val Lys Arg Glu Asp Ile Phe Val
215  65                   70                   75                   80
217 Cys Thr Lys Val Trp Asn His Leu His Arg Tyr Glu Asp Val Leu Trp
218              85                   90                   95
220 Ser Ile Asp Asp Ser Leu Lys Arg Leu Gly Leu Asp Tyr Val Asp Met
221          100                  105                  110
223 Phe Leu Val His Trp Pro Ile Ala Ala Glu Lys Asn Gly Gln Gly Glu
224          115              120                  125
226 Pro Lys Ile Gly Pro Asp Gly Lys Tyr Val Ile Leu Lys Asp Leu Thr
227      130                  135              140
229 Glu Asn Pro Glu Pro Thr Trp Arg Ala Met Glu Lys Ile Tyr Glu Asp
230 145                  150                  155                  160
233 Arg Lys Ala Arg Ser Ile Gly Val Ser Asn Trp Thr Ile Ala Asp Leu
234          165                  170                  175
236 Glu Lys Met Ser Lys Phe Ala Lys Val Met Pro His Ala Asn Gln Ile
237          180                  185                  190
239 Glu Ile His Pro Phe Leu Pro Asn Glu Glu Leu Val Gln Tyr Cys Phe
240          195                  200                  205
242 Ser Lys Asn Ile Met Pro Val Ala Tyr Ser Pro Leu Gly Ser Gln Asn
243      210                  215  ·               220
245 Gln Val Pro Thr Thr Gly Glu Arg Val Ser Glu Asn Lys Thr Leu Asn
246 225                  230                  235                  240
248 Glu Ile Ala Glu Lys Gly Gly Asn Thr Leu Ala Gln Val Leu Ile Ala
249          245                  250                  255
251 Trp Gly Leu Arg Arg Gly Tyr Val Val Leu Pro Lys Ser Ser Asn Pro
252          260                  265                  270
254 Lys Arg Ile Glu Ser Asn Phe Lys Ser Ile Glu Leu Ser Asp Ala Asp
255          275              280                  285
257 Phe Glu Ala Ile Asn Ala Val Ala Lys Gly Arg His Phe Arg Phe Val
258      290                  295                  300
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274 <222> LOCATION: (1)..(978)
276 <400> SEQUENCE: 4
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279   1                    5                    10                   15
281 ggc gtc ggc ttt ggt acc ttc gct agt gaa ggt tcc aag ggc gag acc    96
282 Gly Val Gly Phe Gly Thr Phe Ala Ser Glu Gly Ser Lys Gly Glu Thr
283               20                   25                   30
285 tat act gct gtc acc act gcc ctg aag acc ggt tac cgt cac ttg gac   144
286 Tyr Thr Ala Val Thr Thr Ala Leu Lys Thr Gly Tyr Arg His Leu Asp
287               35                   40                   45
291 tgt gcc tgg tac tac ctg aac gag ggt gag gtt ggt gag ggt atc cgt   192
292 Cys Ala Trp Tyr Tyr Leu Asn Glu Gly Glu Val Gly Glu Gly Ile Arg
293         50                   55                   60
295 gac ttc ctg aag gag aac ccc tcg gtg aag cgt gag gac atc ttc gtc   240
296 Asp Phe Leu Lys Glu Asn Pro Ser Val Lys Arg Glu Asp Ile Phe Val
297 65                   70                   75                   80
299 tgc acc aag gtg tgg aac cac ctc cac cgt tat gag gac gtc ctc tgg   288
300 Cys Thr Lys Val Trp Asn His Leu His Arg Tyr Glu Asp Val Leu Trp
301               85                   90                   95
303 tcc att gac gac tcc ctg aag cgt ctt gga ctt gac tac gtt gat atg   336
304 Ser Ile Asp Asp Ser Leu Lys Arg Leu Gly Leu Asp Tyr Val Asp Met
305               100                  105                  110
307 ttc ctc gtt cac tgg ccc att gct gcc gag aag aat ggc cag ggt gag   384
308 Phe Leu Val His Trp Pro Ile Ala Ala Glu Lys Asn Gly Gln Gly Glu
309           115                  120                  125
311 ccc aag att ggc cct gac ggc aaa tac gtc att ctc aag gac ctg acc   432
312 Pro Lys Ile Gly Pro Asp Gly Lys Tyr Val Ile Leu Lys Asp Leu Thr
313         130                  135                  140
315 gag aac ccc gag ccc aca tgg cgc gct atg gag aag att tat gag gat   480
316 Glu Asn Pro Glu Pro Thr Trp Arg Ala Met Glu Lys Ile Tyr Glu Asp
317 145                  150                  155                  160
319 cgc aag gcc agg tcc att ggt gtc tcc aac tgg acc att gcc gac ctt   528
320 Arg Lys Ala Arg Ser Ile Gly Val Ser Asn Trp Thr Ile Ala Asp Leu
321               165                  170                  175
323 gag aag atg tcc aag ttc gcc aag gtc atg cct cac gcc aac cag atc   576
324 Glu Lys Met Ser Lys Phe Ala Lys Val Met Pro His Ala Asn Gln Ile
325               180                  185                  190
327 gag att cac ccc ttc ctg ccc aac gag gag ctg gtg cag tac tgc ttc   624
328 Glu Ile His Pro Phe Leu Pro Asn Glu Glu Leu Val Gln Tyr Cys Phe
329           195                  200                  205
331 tcc aag aac att atg ccc gtg gcc tac tct cct ctg ggc tcg cag aac   672
332 Ser Lys Asn Ile Met Pro Val Ala Tyr Ser Pro Leu Gly Ser Gln Asn
333         210                  215                  220
335 cag gtt ccc acc acc ggt gag cgg gtc agc gag aac aag act ctg aac   720
336 Gln Val Pro Thr Thr Gly Glu Arg Val Ser Glu Asn Lys Thr Leu Asn
337 225                      230                  235              240
339 gag atc gcc gag aag ggc ggc aac acc ctt gct cag gtt ctt att gcc   768
340 Glu Ile Ala Glu Lys Gly Gly Asn Thr Leu Ala Gln Val Leu Ile Ala
341               245                  250                  255
343 tgg ggt ctg cgc cgt ggc tac gtc gtt ctc ccc aag agc tcc aac ccc   816
344 Trp Gly Leu Arg Arg Gly Tyr Val Val Leu Pro Lys Ser Ser Asn Pro
345               260                  265                  270
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SAGE SUMMARY